O 4C0 04-12₁

#3

OIPE

ENTERED

```
                 RAW SEQUENCE LISTING            DATE: 04/04/2001
                 PATENT APPLICATION:  US/09/809,745   TIME: 14:20:45

                 Input Set : A:\Seqlist.txt
                 Output Set: N:\CRF3\04042001\I809745.raw

      4 <110> APPLICANT: Weiner, Howard L.
      5        Maron, Ruth
      6        Libby, Peter
      8 <120> TITLE OF INVENTION: SUPPRESSION OF VASCULAR DISORDERS BY
      9        MUCOSAL ADMINISTRATION OF HEAT SHOCK PROTEIN PEPTIDES
     12 <130> FILE REFERENCE: B0801/7202 (AWS)
C--> 14 <140> CURRENT APPLICATION NUMBER: US/09/809,745
C--> 14 <141> CURRENT FILING DATE: 2001-03-15
     14 <150> PRIOR APPLICATION NUMBER: US 60/189,855
     15 <151> PRIOR FILING DATE: 2000-03-15
     17 <160> NUMBER OF SEQ ID NOS: 3
     19 <170> SOFTWARE: FastSEQ for Windows Version 3.0
     21 <210> SEQ ID NO: 1
     22 <211> LENGTH: 540
     23 <212> TYPE: PRT
     24 <213> ORGANISM: M. tuberculosis
     26 <400> SEQUENCE: 1
     27 Met Ala Lys Thr Ile Ala Tyr Asp Glu Glu Ala Arg Arg Gly Leu Glu
     28  1           5                  10                  15
     29 Arg Gly Leu Asn Ala Leu Ala Asp Ala Val Lys Val Thr Leu Gly Pro
     30             20                  25                  30
     31 Lys Gly Arg Asn Val Val Leu Glu Lys Lys Trp Gly Ala Pro Thr Ile
     32             35                  40                  45
     33 Thr Asn Asp Gly Val Ser Ile Ala Lys Glu Ile Glu Leu Glu Asp Pro
     34      50                  55                  60
     35 Tyr Glu Lys Ile Gly Ala Glu Leu Val Lys Glu Val Ala Lys Lys Thr
     36 65                  70                  75                  80
     37 Asp Asp Val Ala Gly Asp Gly Thr Thr Thr Ala Thr Val Leu Ala Gln
     38             85                  90                  95
     39 Ala Leu Val Arg Glu Gly Leu Arg Asn Val Ala Ala Gly Ala Asn Pro
     40             100                 105                 110
     41 Leu Gly Leu Lys Arg Gly Ile Glu Lys Ala Val Glu Lys Val Thr Glu
     42             115                 120                 125
     43 Thr Leu Leu Lys Gly Ala Lys Glu Val Glu Thr Lys Glu Gln Ile Ala
     44      130                 135                 140
     45 Ala Thr Ala Ala Ile Ser Ala Gly Asp Gln Ser Ile Gly Asp Leu Ile
     46 145                 150                 155                 160
     47 Ala Glu Ala Met Asp Lys Val Gly Asn Glu Gly Val Ile Thr Val Glu
     48             165                 170                 175
     49 Glu Ser Asn Thr Phe Gly Leu Gln Leu Glu Leu Thr Glu Gly Met Arg
     50             180                 185                 190
     51 Phe Asp Lys Gly Tyr Ile Ser Gly Tyr Phe Val Thr Asp Pro Glu Arg
     52             195                 200                 205
     53 Gln Glu Ala Val Leu Glu Asp Pro Tyr Ile Leu Leu Val Ser Ser Lys
     54      210                 215                 220
     55 Val Ser Thr Val Lys Asp Leu Leu Pro Leu Leu Glu Lys Val Ile Gly
     56 225                 230                 235                 240
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/809,745

DATE: 04/04/2001
TIME: 14:20:45

Input Set : A:\Seqlist.txt
Output Set: N:\CRF3\04042001\I809745.raw

```
57   Ala Gly Lys Pro Leu Leu Ile Ile Ala Glu Asp Val Glu Gly Glu Ala
58                   245                 250                 255
59   Leu Ser Thr Leu Val Val Asn Lys Ile Arg Gly Thr Phe Lys Ser Val
60                   260                 265                 270
61   Ala Val Lys Ala Pro Gly Phe Gly Asp Arg Arg Lys Ala Met Leu Gln
62           275                 280                 285
63   Asp Met Ala Ile Leu Thr Gly Gly Gln Val Ile Ser Glu Glu Val Gly
64           290                 295                 300
65   Leu Thr Leu Glu Asn Ala Asp Leu Ser Leu Leu Gly Lys Ala Arg Lys
66   305                 310                 315                 320
67   Val Val Val Thr Lys Asp Glu Thr Thr Ile Val Glu Gly Ala Gly Asp
68                   325                 330                 335
69   Thr Asp Ala Ile Ala Gly Arg Val Ala Gln Ile Arg Gln Glu Ile Glu
70               340                 345                 350
71   Asn Ser Asp Ser Asp Tyr Asp Arg Glu Lys Leu Gln Glu Arg Leu Ala
72           355                 360                 365
73   Lys Leu Ala Gly Gly Val Ala Val Ile Lys Ala Gly Ala Ala Thr Glu
74       370                 375                 380
75   Val Glu Leu Lys Glu Arg Lys His Arg Ile Glu Asp Ala Val Arg Asn
76   385                 390                 395                 400
77   Ala Lys Ala Ala Val Glu Glu Gly Ile Val Ala Gly Gly Gly Val Thr
78                   405                 410                 415
79   Leu Leu Gln Ala Ala Pro Thr Leu Asp Glu Leu Lys Leu Glu Gly Asp
80           420                 425                 430
81   Glu Ala Thr Gly Ala Asn Ile Val Lys Val Ala Leu Glu Ala Pro Leu
82           435                 440                 445
83   Lys Gln Ile Ala Phe Asn Ser Gly Leu Glu Pro Gly Val Val Ala Glu
84       450                 455                 460
85   Lys Val Arg Asn Leu Pro Ala Gly His Gly Leu Asn Ala Gln Thr Gly
86   465                 470                 475                 480
87   Val Tyr Glu Asp Leu Leu Ala Ala Gly Val Ala Asp Pro Val Lys Val
88                   485                 490                 495
89   Thr Arg Ser Ala Leu Gln Asn Ala Ala Ser Ile Ala Gly Leu Phe Leu
90               500                 505                 510
91   Thr Thr Glu Ala Val Val Ala Asp Lys Pro Glu Lys Glu Lys Ala Ser
92           515                 520                 525
93   Val Pro Gly Gly Gly Asp Met Gly Gly Met Asp Phe
94       530                 535                 540
96   <210> SEQ ID NO: 2
97   <211> LENGTH: 573
98   <212> TYPE: PRT
99   <213> ORGANISM: H. sapiens
101  <400> SEQUENCE: 2
102  Met Leu Arg Leu Pro Thr Val Phe Arg Gln Met Arg Pro Val Ser Arg
103  1               5                   10                  15
104  Val Leu Ala Pro His Leu Thr Arg Ala Tyr Ala Lys Asp Val Lys Phe
105                  20                  25                  30
106  Gly Ala Asp Ala Arg Ala Leu Met Leu Gln Gly Val Asp Leu Leu Ala
107              35                  40                  45
```

RAW SEQUENCE LISTING   DATE: 04/04/2001
PATENT APPLICATION: US/09/809,745   TIME: 14:20:45

Input Set : A:\Seqlist.txt
Output Set: N:\CRF3\04042001\I809745.raw

```
108  Asp Ala Val Ala Val Thr Met Gly Pro Lys Gly Arg Thr Val Ile Ile
109      50                  55                  60
110  Glu Gln Ser Trp Gly Ser Pro Lys Val Thr Lys Asp Gly Val Thr Val
111  65                  70                  75                  80
112  Ala Lys Ser Ile Asp Leu Lys Asp Lys Tyr Lys Asn Ile Gly Ala Lys
113              85                  90                  95
114  Leu Val Gln Asp Val Ala Asn Asn Thr Asn Glu Glu Ala Gly Asp Gly
115              100                 105                 110
116  Thr Thr Thr Ala Thr Val Leu Ala Arg Ser Ile Ala Lys Glu Gly Phe
117          115                 120                 125
118  Glu Lys Ile Ser Lys Gly Ala Asn Pro Val Glu Ile Arg Arg Gly Val
119      130                 135              140
120  Met Leu Ala Val Asp Ala Val Ile Ala Glu Leu Lys Lys Gln Ser Lys
121  145                 150                 155                 160
122  Pro Val Thr Thr Pro Glu Glu Ile Ala Gln Val Ala Thr Ile Ser Ala
123              165                 170                 175
124  Asn Gly Asp Lys Glu Ile Gly Asn Ile Ile Ser Asp Ala Met Lys Lys
125              180                 185                 190
126  Val Gly Arg Lys Gly Val Ile Thr Val Lys Asp Gly Lys Thr Leu Asn
127          195                 200                 205
128  Asp Glu Leu Glu Ile Ile Glu Gly Met Lys Phe Asp Arg Gly Tyr Ile
129      210                 215                 220
130  Ser Pro Tyr Phe Ile Asn Thr Ser Lys Gly Gln Lys Cys Glu Phe Gln
131  225                 230                 235                 240
132  Asp Ala Tyr Val Leu Leu Ser Glu Lys Lys Ile Ser Ser Ile Gln Ser
133              245                 250                 255
134  Ile Val Pro Ala Leu Glu Ile Ala Asn Ala His Arg Lys Pro Leu Val
135              260                 265                 270
136  Ile Ile Ala Glu Asp Val Asp Gly Glu Ala Leu Ser Thr Leu Val Leu
137          275                 280                 285
138  Asn Arg Leu Lys Val Gly Leu Gln Val Val Ala Val Lys Ala Pro Gly
139      290                 295                 300
140  Phe Gly Asp Asn Arg Lys Asn Gln Leu Lys Asp Met Ala Ile Ala Thr
141  305                 310                 315                 320
142  Gly Gly Ala Val Phe Gly Glu Glu Gly Leu Thr Leu Asn Leu Glu Asp
143              325                 330                 335
144  Val Gln Pro His Asp Leu Gly Lys Val Gly Glu Val Ile Val Thr Lys
145              340                 345                 350
146  Asp Asp Ala Met Leu Leu Lys Gly Lys Gly Asp Lys Ala Gln Ile Glu
147          355                 360                 365
148  Lys Arg Ile Gln Glu Ile Ile Glu Gln Leu Asp Val Thr Thr Ser Glu
149      370                 375                 380
150  Tyr Glu Lys Glu Lys Leu Asn Glu Arg Leu Ala Lys Leu Ser Asp Gly
151  385                 390                 395                 400
152  Val Ala Val Leu Lys Val Gly Gly Thr Ser Asp Val Glu Val Asn Glu
153              405                 410                 415
154  Lys Lys Asp Arg Val Thr Asp Ala Leu Asn Ala Thr Arg Ala Ala Val
155              420                 425                 430
156  Glu Glu Gly Ile Val Leu Gly Gly Gly Cys Ala Leu Leu Arg Cys Ile
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/809,745

DATE: 04/04/2001
TIME: 14:20:45

Input Set : A:\Seqlist.txt
Output Set: N:\CRF3\04042001\I809745.raw

```
157            435                    440                    445
158   Pro Ala Leu Asp Ser Leu Thr Pro Ala Asn Glu Asp Gln Lys Ile Gly
159            450                    455                    460
160   Ile Glu Ile Ile Lys Arg Thr Leu Lys Ile Pro Ala Met Thr Ile Ala
161   465                    470                    475                    480
162   Lys Asn Ala Gly Val Glu Gly Ser Leu Ile Val Glu Lys Ile Met Gln
163                   485                    490                    495
164   Ser Ser Ser Glu Val Gly Tyr Asp Ala Met Ala Gly Asp Phe Val Asn
165                   500                    505                    510
166   Met Val Glu Lys Gly Ile Ile Asp Pro Thr Lys Val Val Arg Thr Ala
167            515                    520                    525
168   Leu Leu Asp Ala Ala Gly Val Ala Ser Leu Leu Thr Thr Ala Glu Val
169            530                    535                    540
170   Val Val Thr Glu Ile Pro Lys Glu Glu Lys Asp Pro Gly Met Gly Ala
171   545                    550                    555                    560
172   Met Gly Gly Met Gly Gly Gly Met Gly Gly Gly Met Phe
173                   565                    570
175   <210> SEQ ID NO: 3
176   <211> LENGTH: 544
177   <212> TYPE: PRT
178   <213> ORGANISM: C. pneumoniae
180   <400> SEQUENCE: 3
181   Met Ala Ala Lys Asn Ile Lys Tyr Asn Glu Glu Ala Arg Lys Lys Ile
182   1                5                    10                    15
183   His Lys Gly Val Lys Thr Leu Ala Glu Ala Val Lys Val Thr Leu Gly
184            20                    25                    30
185   Pro Lys Gly Arg His Val Val Ile Asp Lys Ser Phe Gly Ser Pro Gln
186            35                    40                    45
187   Val Thr Lys Asp Gly Val Thr Val Ala Lys Glu Ile Glu Leu Glu Asp
188   50                    55                    60
189   Lys His Glu Asn Met Gly Ala Gln Met Val Lys Glu Val Ala Ser Lys
190   65                    70                    75                    80
191   Thr Ala Asp Lys Ala Gly Asp Gly Thr Thr Thr Ala Thr Val Leu Ala
192                   85                    90                    95
193   Glu Ala Ile Tyr Ser Glu Gly Leu Arg Asn Val Thr Ala Gly Ala Asn
194                   100                    105                    110
195   Pro Met Asp Leu Lys Arg Gly Ile Asp Lys Ala Val Lys Val Val Val
196            115                    120                    125
197   Asp Glu Leu Lys Lys Ile Ser Lys Pro Val Gln His His Lys Glu Ile
198            130                    135                    140
199   Ala Gln Val Ala Thr Ile Ser Ala Asn Asn Asp Ser Glu Ile Gly Asn
200   145                    150                    155                    160
201   Leu Ile Ala Glu Ala Met Glu Lys Val Gly Lys Asn Gly Ser Ile Thr
202                   165                    170                    175
203   Val Glu Glu Ala Lys Gly Phe Glu Thr Val Leu Asp Val Val Glu Gly
204                   180                    185                    190
205   Met Asn Phe Asn Arg Gly Tyr Leu Ser Ser Tyr Phe Ser Thr Asn Pro
206            195                    200                    205
207   Glu Thr Gln Glu Cys Val Leu Glu Asp Ala Leu Ile Leu Ile Tyr Asp
```

```
208        210                  215                  220
209  Lys Lys Ile Ser Gly Ile Lys Asp Phe Leu Pro Val Leu Gln Gln Val
210  225                  230                  235                  240
211  Ala Glu Ser Gly Arg Pro Leu Leu Ile Ile Ala Glu Glu Ile Glu Gly
212                  245                  250                  255
213  Glu Ala Leu Ala Thr Leu Val Val Asn Arg Leu Arg Ala Gly Phe Arg
214                  260                  265                  270
215  Val Cys Ala Val Lys Ala Pro Gly Phe Gly Asp Arg Arg Lys Ala Met
216            275                  280                  285
217  Leu Glu Asp Ile Ala Ile Leu Thr Gly Gly Gln Leu Val Ser Glu Glu
218            290                  295                  300
219  Leu Gly Met Lys Leu Glu Asn Thr Thr Leu Ala Met Leu Gly Lys Ala
220  305                  310                  315                  320
221  Lys Lys Val Ile Val Thr Lys Glu Asp Thr Thr Ile Val Glu Gly Leu
222                  325                  330                  335
223  Gly Asn Lys Pro Asp Ile Gln Ala Arg Cys Asp Asn Ile Lys Lys Gln
224                  340                  345                  350
225  Ile Glu Asp Ser Thr Ser Asp Tyr Asp Lys Glu Lys Leu Gln Glu Arg
226            355                  360                  365
227  Leu Ala Lys Leu Ser Gly Gly Val Ala Val Ile Arg Val Gly Ala Ala
228            370                  375                  380
229  Thr Glu Ile Glu Met Lys Glu Lys Lys Asp Arg Val Asp Asp Ala Gln
230  385                  390                  395                  400
231  His Ala Thr Ile Ala Ala Val Glu Glu Gly Ile Leu Pro Gly Gly Gly
232                  405                  410                  415
233  Thr Ala Leu Val Arg Cys Ile Pro Thr Leu Glu Ala Phe Leu Pro Met
234            420                  425                  430
235  Leu Ala Asn Glu Asp Glu Ala Ile Gly Thr Arg Ile Ile Leu Lys Ala
236            435                  440                  445
237  Leu Thr Ala Pro Leu Lys Gln Ile Ala Ser Asn Ala Gly Lys Glu Gly
238            450                  455                  460
239  Ala Ile Ile Cys Gln Gln Val Leu Ala Arg Ser Ala Asn Glu Gly Tyr
240  465                  470                  475                  480
241  Asp Ala Leu Arg Asp Ala Tyr Thr Asp Met Ile Asp Ala Gly Ile Leu
242            485                  490                  495
243  Asp Pro Thr Lys Val Thr Arg Ser Ala Leu Glu Ser Ala Ala Ser Ile
244            500                  505                  510
245  Ala Gly Leu Leu Leu Thr Thr Glu Ala Leu Ile Ala Asp Ile Pro Glu
246            515                  520                  525
247  Glu Lys Ser Ser Ser Ala Pro Ala Met Pro Ser Ala Gly Met Asp Tyr
248            530                  535                  540
```

VERIFICATION SUMMARY   DATE: 04/04/2001
PATENT APPLICATION: US/09/809,745   TIME: 14:20:46

Input Set : **A:\Seqlist.txt**
Output Set: **N:\CRF3\04042001\I809745.raw**

L:14 M:270 C: Current Application Number differs, Replaced Current Application No
L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date